AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A computer readable~~recording~~ medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the computer readable~~recording~~ medium, comprising:

a data area storing at least a portion of the multiple reproduction path video data, the multiple reproduction path video data divided into one or more interleaving units, each interleaving unit associated with one of the reproduction paths, each interleaving unit starting and ending with a reproduction path change point, ~~and~~ the interleaving units associated with different reproduction paths being interleaved in the data area, and the video data in each interleaving unit being divided into one or more entry points; and

a management area storing management information for managing reproduction of the multiple reproduction path video data, the management information including at least one entry point map associated with each reproduction path, each entry point map identifying the entry points in the video data for the associated reproduction path.

2. (Currently Amended) The computer readable~~recording~~ medium of claim 1, wherein the multiple reproduction path video data is divided into a plurality of clip files, each clip file including video data associated with one of the multiple reproduction paths, and each clip file divided into one or more of the interleaving units.

3. (Canceled)

4. (Currently Amended) The computer readable~~recording~~ medium of claim 1[[3]], wherein each interleaved unit in at least one clip file includes a same number of entry points.

5. (Currently Amended) The computer readable~~recording~~ medium of claim 1[[3]], wherein at least two interleaved units in at least one clip file have a different number of entry points.

6. (Canceled)

7. (Currently Amended) The computer readable~~recording~~ medium of claim 1[[6]], wherein each entry point map indicates which of the identified entry points is a last entry point in an interleaved unit.

8. (Currently Amended) The computer readable~~recording~~ medium of claim 1[[6]], wherein each entry point map indicates which of the identified entry points is a first entry point in an interleaved unit.

9. (Currently Amended) The computer readable~~recording~~ medium of claim 1[[6]], wherein the entry point maps are aligned in time.

10. (Currently Amended) The computer readable~~recording~~ medium of claim 2, ~~further comprising:~~wherein

~~a management area storing management information,~~ the management information includes~~including~~ an information file associated with each clip file, each information file including the at least one entry point map for the associated ~~with each~~ clip file, each entry point map identifying entry points in the clip file.

11. (Currently Amended) The computer readable~~recording~~ medium of claim 10, wherein each entry point map indicates which of the identified entry points is a last entry point in an interleaved unit.

12. (Currently Amended) The computer readable~~recording~~ medium of claim 10, wherein each entry point map indicates which of the identified entry points is a first entry point in an interleaved unit.

13. (Currently Amended) The computer readable~~recording~~ medium of claim 10, wherein the entry point maps are aligned in time.

14. (Currently Amended) A computer readable~~recording~~ medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the computer readable~~recording~~ medium, comprising:

a data area storing a plurality of clip files, each clip file including video data associated with one of the multiple reproduction paths, each clip file divided into entry points of video data, the entry points in each clip file being grouped into one or more interleaving units, and the plurality of clip files being interleaved in the data area on a interleaving unit basis; and

a management area storing management information for managing reproduction of the multiple reproduction path video data, the management information including an information file associated with each clip file, each information file providing at least one entry point map for the associated clip file, each entry point map identifying entry points in the clip file.

15. (Currently Amended) The computer readable~~recording~~ medium of clam 14, wherein each interleaved unit in at least one clip file includes a same number of entry points.

16. (Currently Amended) The computer readable~~recording~~ medium of claim 14, wherein at least two interleaved units in at least one clip file have a different number of entry points.

17. (Currently Amended) A computer readable~~recording~~ medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the recording medium, comprising:

a data area storing at least a portion of the multiple reproduction path video data, the multiple reproduction path video data divided into one or more interleaving units, each interleaving unit associated with one of the reproduction paths, each interleaving unit being formed of a number of entry points, and the interleaving units associated with different reproduction paths being interleaved in the data area; and

a management area storing management information for managing reproduction of the multiple reproduction path video data, the management information including at least one entry point map associated with each reproduction path, each entry point map identifying the entry points in the video data for the associated reproduction path.

18. (Currently Amended) The computer readable~~recording~~ medium of claim 17, wherein the number of entry points is fixed for at least interleaving units associated with a same reproduction path.

19. (Currently Amended) The computer readable~~recording~~ medium of claim 17, wherein the number of entry points varies for at least interleaving units associated with a same reproduction path.

20. (Currently Amended) A method of recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising:

recording at least a portion of the multiple reproduction path video data in a data area of the recording medium, the multiple reproduction path video data divided into one or more interleaving units, each interleaving unit associated with one of the reproduction paths, each interleaving unit starting and ending with a reproduction path change point, ~~and~~ the interleaving units associated with different reproduction paths being interleaved in the data area, and the video data in each interleaving unit being divided into one or more entry points; and

a management area storing management information for managing reproduction of the multiple reproduction path video data, the management information including at least one entry point map associated with each reproduction path, each entry point map identifying the entry points in the video data for the associated reproduction path.

21. (Currently Amended) A method of reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising:

reproducing at least a portion of the multiple reproduction path video data from a data area of the recording medium, the multiple reproduction path video data divided into one or more interleaving units, each interleaving unit associated with one of the reproduction paths, each interleaving unit starting and ending with a reproduction path change point, ~~and~~ the interleaving

units associated with different reproduction paths being interleaved in the data area, and the video data in each interleaving unit being divided into one or more entry points; and

a management area storing management information for managing reproduction of the multiple reproduction path video data, the management information including at least one entry point map associated with each reproduction path, each entry point map identifying the entry points in the video data for the associated reproduction path.

22. (Currently Amended) An apparatus for recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising:

~~a driver for driving~~ an optical recording device configured to record data on the recording medium;

an encoder configured to encode~~for encoding~~ at least multiple reproduction path video data; and

a controller configured to control ~~for controlling the driver~~the optical recording device to record the encoded multiple reproduction path video data on the recording medium, the controller for controlling the driver to record at least a portion of the multiple reproduction path video data in a data area of the recording medium, the multiple reproduction path video data divided into one or more interleaving units, each interleaving unit associated with one of the reproduction paths, each interleaving unit starting and ending with a reproduction path change point, ~~and~~ the interleaving units associated with different reproduction paths being interleaved in the data area, the video data in each interleaving unit being divided into one or more entry points, and

the controller configured to control the optical recording device to record management information for managing reproduction of the multiple reproduction path video data in a

management area of the recording medium, the management information including at least one entry point map associated with each reproduction path, each entry point map identifying the entry points in the video data for the associated reproduction path.

23. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising:

~~a driver for driving~~ an optical reproducing device configured to reproduce data recorded on the recording medium;

a controller configured to control~~for controlling the driver~~ the optical reproducing device to reproduce at least a portion of the multiple reproduction path video data from a data area of the recording medium, the multiple reproduction path video data divided into one or more interleaving units, each interleaving unit associated with one of the reproduction paths, each interleaving unit starting and ending with a reproduction path change point, ~~and~~ the interleaving units associated with different reproduction paths being interleaved in the data area, the video data in each interleaving unit being divided into one or more entry points, and

the controller configured to control the optical reproducing device to reproduce management information for managing reproduction of the multiple reproduction path video data from a management area of the recording medium, the management information including at least one entry point map associated with each reproduction path, each entry point map identifying the entry points in the video data for the associated reproduction path.

24. (New) The apparatus of claim 22, wherein each interleaved unit in at least one clip file includes a same number of entry points.

25. (New) The apparatus of claim 22, wherein at least two interleaved units in at least one clip file have a different number of entry points.

26. (New) The apparatus of claim 23, wherein each interleaved unit in at least one clip file includes a same number of entry points.

27. (New) The apparatus of claim 23, wherein at least two interleaved units in at least one clip file have a different number of entry points.

28. (New) The method of claim 20, wherein the multiple reproduction path video data is divided into a plurality of clip files, each clip file including video data associated with one of the multiple reproduction paths, and each clip file divided into one or more of the interleaving units.

29. (New) The method of claim 21, wherein the multiple reproduction path video data is divided into a plurality of clip files, each clip file including video data associated with one of the multiple reproduction paths, and each clip file divided into one or more of the interleaving units.

END OF CLAIMS

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